

**Exercise 1** (a) The function  $f$  defined by  $f(x) = 12x$  is

**Multiple Choice:**

- (i) even.
- (ii) odd. ✓
- (iii) neither even nor odd.
- (iv) both even and odd.

(b) The function  $f$  defined by  $f(x) = 12x + 2$  is

**Multiple Choice:**

- (i) even.
- (ii) odd.
- (iii) neither even nor odd. ✓
- (iv) both even and odd.

(c) The function  $f$  defined by  $f(x) = 12$  is

**Multiple Choice:**

- (i) even. ✓
- (ii) odd.
- (iii) neither even nor odd.
- (iv) both even and odd.

(d) The function  $f$  defined by  $f(x) = 5x^2 - 4$  is

**Multiple Choice:**

- (i) even. ✓
- (ii) odd.
- (iii) neither even nor odd.
- (iv) both even and odd.

(e) The function  $f$  defined by  $f(x) = 3x^3 - 5x$  is

**Multiple Choice:**

- (i) even.
- (ii) odd. ✓
- (iii) neither even nor odd.

(iv) *both even and odd.*

(f) *The function  $f$  defined by  $f(x) = 0$  is*

**Multiple Choice:**

(i) *even.*

(ii) *odd.*

(iii) *neither even nor odd.*

(iv) *both even and odd. ✓*